National Institute of Environmental Health Sciences

Geoenvironmental diabetology

Author(s): Cook CB, Wellik KE, Fowke M
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Abstract:

Many reports have documented the negative health consequences that environmental stressors can have on patients with diabetes. Studies examining the interaction between the environment and a patient with diabetes can be unified under a single discipline termed "geoenvironmental diabetology." Geoenvironmental diabetology is defined more specifically as the study of how geophysical phenomena impact a patient with diabetes, to include effects on metabolic control, ancillary equipment (e.g., glucometers and insulin pumps), medications, supplies, access to care, and influences on the adaptive strategies employed by patients to care for their diabetes under extreme circumstances. Geological events such as natural disasters (e.g., earthquakes) or extreme weather (e.g., heat waves) are examples of stressors that can affect patients with diabetes and that can be included under the heading of geoenvironmental diabetology. As proposed here, geoenvironmental diabetology refers to how events in the physical world affect those with diagnosed diabetes, rather than how environmental factors might trigger development of disease. As the global prevalence of diabetes continues to increase, including in parts of the world that are especially vulnerable to disasters and climate change, further discussion is warranted on how to best prepare for management of diabetes under conditions of extreme geological and weather events and a changing climate. An overview is presented of various studies that have detailed how geoenvironmental phenomena can adversely affect patients with diabetes and concludes with a discussion of requirements for developing strategies for geoenvironmental diabetes management.

Source: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3192586

Resource Description

Communication:

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience:

audience to whom the resource is directed

Health Professional, Policymaker

Exposure :

weather or climate related pathway by which climate change affects health

Air Pollution, Extreme Weather Event, Temperature

Air Pollution: Interaction with Temperature, Particulate Matter

Temperature: Extreme Cold, Extreme Heat

Geographic Feature: ☑

resource focuses on specific type of geography

None or Unspecified

Geographic Location: ☑

resource focuses on specific location

Global or Unspecified

Health Impact: ☑

specification of health effect or disease related to climate change exposure

Diabetes/Obesity

Intervention: ☑

strategy to prepare for or reduce the impact of climate change on health

A focus of content

Medical Community Engagement: ☑

resource focus on how the medical community discusses or acts to address health impacts of climate change

A focus of content

Mitigation/Adaptation: ☑

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern: ☑

populations at particular risk or vulnerability to climate change impacts

Low Socioeconomic Status

Other Vulnerable Population: Patients with diabetes

Resource Type: ☑

format or standard characteristic of resource

Review

Timescale: ☑

time period studied

Time Scale Unspecified